THERMALLY STABILIZED TURBINE SCROLL RETENTION RING FOR UNIFORM LOADING APPLICATION

ABSTRACT OF THE DISCLOSURE

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[0033] A turbine scroll retention ring may comprise a retainer ring, a plurality of ring fingers, and a plurality of ring joggles. The turbine scroll retention ring may surround and be attached to a radial nozzle. The ring joggles may allow for thermal growth variations between the radial nozzle and the turbine scroll retention ring. The radially outer end portions of the ring fingers may be in contact with a turbine scroll component (for example, an aft scroll ring), such that the turbine scroll retention ring may force contact between the turbine scroll component and the radial nozzle. The finger joggles of the ring fingers may allow for thermal growth variations between the radial nozzle and the turbine scroll component. The turbine scroll retention ring may provide constant axial loading to the aft scroll ring during all engine operating conditions.